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Project ENRICH was conceived in Beaver County, Pennsylvania, to: (1) identify preschool children with learning disabilities, and (2) to develop a program geared to the remediation of the learning disabilities within a school year, while allowing the child to be enrolled in a regular class situation for the following school year. Through kindergarten teachers and parent cooperation, 34 children were enrolled, all with an intelligence quotient of 90 or better. The average age was 5.5 years. Each child was classified as having a particular disability. Each child was tested extensively, using the Stanford Binet along with other instruments. The curriculum is carefully explained, including a diagram of areas covered. Tables give the precise results of the program at its conclusion. The authors felt that generally the curricular attack used in this program may efficiently and positively modify learner behavior and significantly reduce the negative effects of the various learning disabilities treated in this project. The remediation expected was met and exceeded. The research reported herein was funded under Title III of the Elementary and Secondary Education Act. (Author/KJ)

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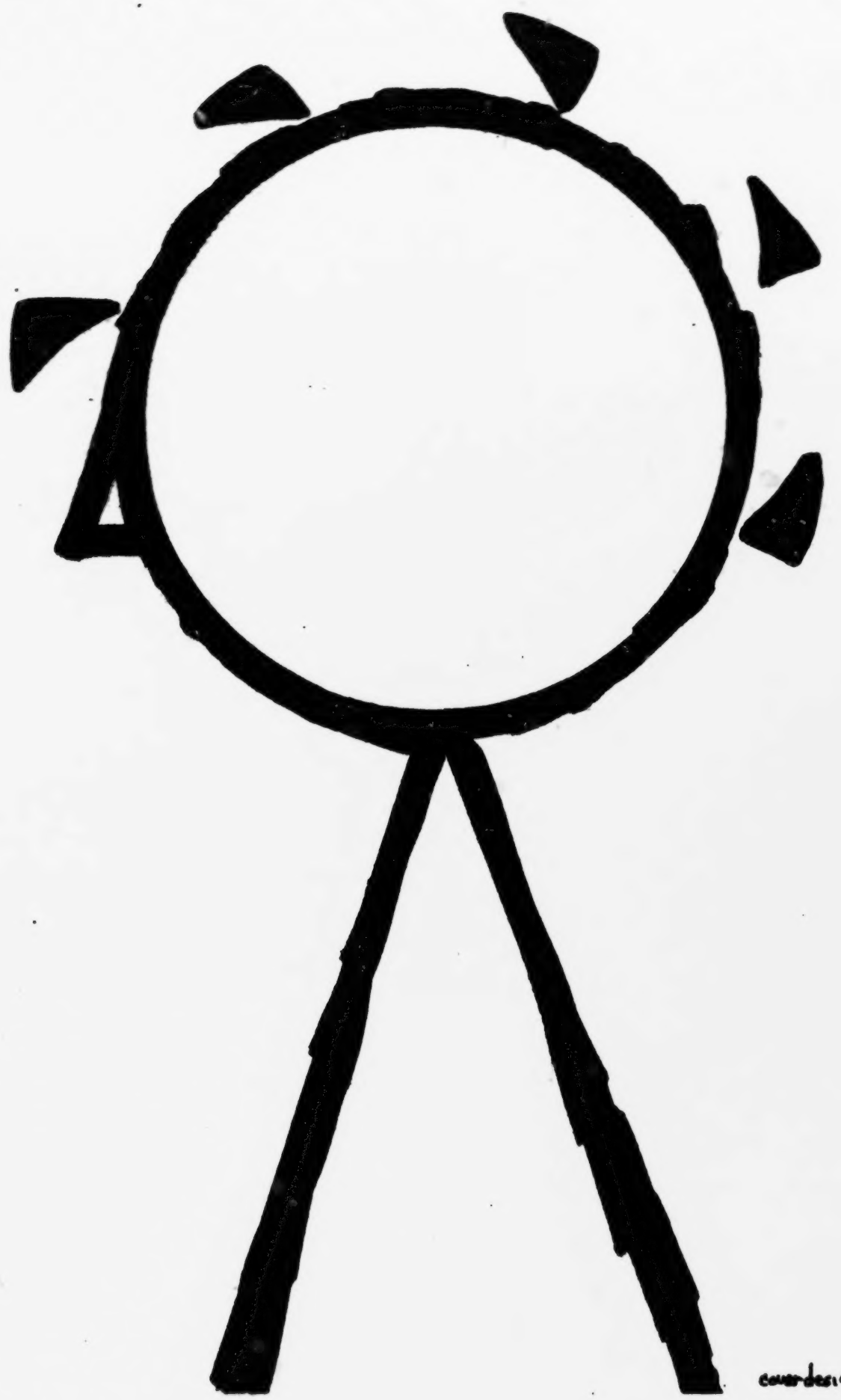
PROJECT ENRICH



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FOREWORD

Beaver County has been fortunate in securing a Title III, Elementary and Secondary Education Act, P.L. 89-10 grant to establish a Child Study and Educational Demonstration Center. During the initial phase of the project period, the project has been implemented as planned and children with suspected learning disabilities have been served.

The present report is the initial evaluation of the project activities during the first operational period. Although the data collected has not been subjected to sophisticated statistical treatments, the data does support an optimistic statement relative to the project activities and to the value of a preschool program for children with suspected learning disabilities.

It remains the hope of the entire project staff, that the feasibility and value of the Child Study and Educational Demonstration Center, PROJECT ENRICH, has been and will continue to be supported.

In essence, the project activities provide a "laboratory" situation for the special education programs in Beaver County. From the techniques and procedures developed with preschool children, improved instructional techniques and procedures should result that will be applicable with public school children in special education. Moreover, the project will provide information helpful in organizing new special education programs for children not now served under existing areas of exceptionality.

Based upon the available information, the Child Study and Educational Demonstration Center developed in Beaver County appears to be a welcome addition to the educational programs available through the Beaver County Public Schools.

Richard K. Myers, Ed.D.
Supervisor of Special Education
Beaver County

INTRODUCTION

A perusal of the current research indicates that between 10% and 15% of the "normal appearing" children entering first grade will very early in their academic experience begin to falter in their work, falling well below age-expected norms in achievement. And, it is recognized that reading achievement throughout the grades is 2 to 3 years behind. Certainly, many causes may be seen as contributory. However, in the opinions of many, and those personnel involved with PROJECT ENRICH, much of the trouble lies in two areas that will be treated in this evaluation. The first is a "learning disability" problem; i.e., any condition existing in the learner which militates against average learning rates, usually in a standard class educational situation. The second area concerns the lack of adequate motivation or lack of adequate schedules of appropriately rewarding events. The traditional modus operandi in the classroom learning situations, which also disregards the individual needs of the learner, is regarded by behavioral technologists as an anachronism.

These two areas will be discussed in more detail in this paper.

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PROJECT ENRICH was conceived by Dr. Richard K. Myers, Supervisor of Special Education in Beaver County, Pennsylvania, with the help of a "task force" whose purpose was to identify major unmet educational needs in Beaver County. With a general outline of a program designed to remediate learning disabilities in preschool children, PROJECT ENRICH was funded by a Title III, E.S.E.A., (P.L. 89-10) grant for three years. The authors of this paper, working for Beaver County Board of School Directors, designed and executed the program. The program had 2 basic objectives:

(a) the identification of preschool children with a learning disability(s); and,

(b) the development of a program geared to the remediation of the learning disability(s) within a school year, allowing the youngster to be enrolled in a regular class situation for the following school year.

LEARNING DISABILITY

That which interferes with an intellectually capable youngster's learning rate defines a "learning disability"; i.e.,

(a) sensory impairment,
(b) motor impairment,
(c) perceptual impairment,
(d) behavioral impairment,
(e) speech and language impairment.

Learning disability(s) preclude(s) comfortable competition and achievement rates with peers, and, often results in a behaviorally dichotomous situation, either withdrawal or aggressiveness. It is pointed out that these children <u>appear to be normal</u>, and on a test of intelligence, frequently score within the normal or average range.

SUBJECT IDENTIFICATION

Learning disabilities in preschool children usually do not come to the attention of the physician. In order to identify such preschoolers, it was necessary to stimulate public awareness. The newspapers provided the vehicle. The two county newspapers, "Beaver County Times" and the "News-Tribune", cooperated excellently with the project. At our request they ran several fine stories accompanied with pictures. Children with learning disabilities were described in lay terms; i.e., does your preschooler seem awkward, fall often, have difficulty in balance? Does he have difficulty speaking to you? Do you have difficulty in understanding him? Can he pick up very small objects from the floor, manipulate things well? This kind of questioning yielded many calls from concerned parents. Another method of identification of these children resulted from the extensive summer testing program offered by Beaver County Special Pupil Services. And a third method was found by surveying the kindergarten classes a few weeks after they began. Here, we asked the teacher to locate those children who appeared "different" from the group.

TEST BATTERY

All children were given the following comprehensive test battery:

(a) Stanford-Binet
(b) Wechsler Preschool and Primary Scale of Intelligence
(c) Children's Perceptual Achievement Forms
(d) Berry's Test of Visual-Motor Integration
(e) Frostig's Test of Visual Perception
(f) Wepmen's Test of Auditory Discrimination

(g) Vineland or Cain-Levine Scale of Social Competence
(h) House-Tree-Person
(i) Purdue Perceptual Motor Survey
(j) Illinois Test of Psycholinguistic Ability
(k) Speech Evaluation (By a Staff Speech Therapist)
(l) Visual Evaluation (By a Consultant Optometrist)
(m) Neurological Examination (By a Consultant Neurologist) (Optional)

With the exception of 3 children, those offered the services of PROJECT ENRICH were normal in intelligence, scoring 90 IQ points or above. All children exhibited impairments based upon the results of the testing in visual, visual-motor or perceptual skills, motor coordination, speech or language, and/or behavior. The test results allowed a safe prediction by a qualified psychologist that these children would not be able to successfully achieve in a regular class situation a year later without some form of educational intervention.

REINFORCEMENT PROCEDURES

The technique of producing high levels of response, motivation, and efficient learning rates operated on a simple principle, The Law of Operant Conditioning:

> a response (behavior) which is followed by a reinforcing event (consequence) will tend to recur.

Thus, the teacher must develop a new response set, the establishment of contingencies; i.e., "If you do this (x), then you can have (do) this (y)." "Y" can be a tangible, such as candy, or it can be a preferred task (Premack: the rewarding of a non-preferred task with a preferred task). At PROJECT ENRICH both reinforcers were used, tangibles; i.e., M&Ms,

and salty popcorn, and non-tangible preferred tasks; i.e., copious amounts of motor activity. The "non-preferred" task consisted (mainly) of learning assignments; i.e., Frostig Work Sheets, Fitzhugh PLUS Programs, language programs, speech training, and general classroom orientation. All desirable social, learning responses, and preferred motor acts were initially rewarded with the tangibles (first month of program), called a continuous reinforcement schedule. Following this schedule, the children were rewarded on an aperiodic schedule; i.e., tangibles were given occasionally; high response rates were easily maintained.

SUBJECTS IN PROGRAM

The enrollment of the first session of PROJECT ENRICH consisted of 11 girls and 23 boys, a ratio of 2 boys to 1 girl. The age range ran from 4.4 to 6.9 years, with the average age of 5.5 years. The average Mental Age was 5.6 and the average IQ was 90.57.

Technically, each child had been classified as perceptually or neurologically impaired, brain-injured or damaged, physically handicapped, severely learning handicapped, etc. However, educationally, these categories overlapped so that the following types of problems were found. Some were specific to a particular child while others were common to many of our children:

Speech problems--articulation, etc.
Motor perceptual problems
Aggression
Short attention span
Cultural deprivation
Bizarre behavior (biting, etc.)

Hyperactive
Emotionally disturbed
Withdrawn
Non-verbal
Visual-motor problems
Dependent
Epileptic
Hearing loss
Immature
Minimal brain dysfunction
Visual acuity problems
Visual-perceptual problems
Motor incoordination
Stuttering
Inadequate social development
Rebellion
Perseveration

PHYSICAL SETTING

The classes were held in a two-story office building in New Brighton, Pennsylvania. The two classrooms and the speech therapy room were on the first floor, and the administration offices were on the second floor. One classroom was used as the academic room and the other for motor activities. Both rooms were approximately 15' x 24' with adjoining bathrooms. The walls were painted soft yellow and the floors were beige tiles. The windows were draped with plain beige material. The furniture and cubicles were walnut stained wood. The open cupboards and shelving were covered with beige cotton material. The classrooms were devoid of all decorations, except for three large geometric shapes which were used in connection with our visual-perceptual activities. There were three cubicles in the back of the academic room; however, in this particular session, they were not used except for a few isolated cases when a child

wanted to complete an activity when the class was ready to go on to something else. The cubicles were called "offices."

The children were divided into two sessions: 17 in the morning class and 17 in the afternoon class. The morning sessions were held from 9:30 to 12:00 and the afternoon sessions from 1:00 to 3:30. Classes were held four days a week. The children did not come on Wednesday; the teachers met with the psychologists for consultations about particular children and the development of educational prescriptions. The children were picked up at their homes and were taken back to their homes after their school session. This phase of the program started on February 19, 1968 and ended June 28, 1968, a period of approximately 73 school days.

SPEECH - HEARING - LANGUAGE

All of the 34 children enrolled in the project were given a picture articulation test, a hearing test (using a Maico pure tone audiometer) and a language evaluation measured by the Illinois Test of Psycholinguistic Abilities (ITPA). The oral peripheral speech mechanism was also investigated.

Explanation of the ITPA (Experimental Edition)

This is a diagnostic testing tool, which has as its goal, the detection of specific language abilities and disabilities within the subject so that an educational remedial program can be initiated based on these findings.

There are nine psycholinguistic abilities defined, and they all assess some aspect of the subject's ability to deal with meaningful symbols--to understand the meaning of symbols (decoding), to express meaningful ideas in symbols (encoding), or to relate symbols on a meaningful basis (association).

The "language age" obtained on the test may be used for comparing the results of the ITPA with other instruments whose scores are expressed in terms of age.

In setting up a remedial program the following breakdown is used:

a. severe disability - language age one year or more below chronological age.

b. moderate disability - language age less than one year but still below chronological age expectancy.

Use Of The ITPA In PROJECT ENRICH

Because the program was short (four and one-half months) and the amount of time necessary to administer the ITPA, a re-evaluation with this test was impossible.

The Preschool Diagnostic Language Program

Remedial instruction, using the Preschool Diagnostic Language Program by Alan S. Hartman (based on the ITPA), did not pass the initial stage and included only seven children, those most severely involved. However, the classroom instructors did feel that progress could be noticed even in that short period of time.

Remediation for the remainder of the children with language disabilities (identified through the ITPA) was carried out in the Peabody Language Program and the Educational Media Labs, both integral parts of the PROJECT ENRICH curriculum.

Caseload Distribution

Twenty-seven of the thirty-four children enrolled in PROJECT ENRICH exhibited some degree of speech, language and/or hearing involvement. The breakdown is as follows:

a. Language problems identified through the ITPA

(1) Severe - 13
(2) Moderate - 6

b. Articulation problems

(1) Severe - 5
(2) Moderate - 5
(3) Mild - 7

c. Hearing problems

(1) Moderate - 3 (these children wore hearing aids)
(2) Mild - 4 (these children were referred for evaluation by an otologist)

d. Stuttering

(1) Mild to Moderate-1
(2) Mild - 1

e. Voice problems

(1) Moderate - 1 (velar insufficiency)
(2) Mild - 2 (hoarseness; referred for evaluation by an otolaryngologist)

f. Oral peripheral deviation - 13 (including tongue thrust, lack of tongue control, palatal deviations, poor diadochokinesis)

Those children labeled as speech, language, and/or hearing problems included 17 boys and 10 girls. The above figures show 79% of the children enrolled in PROJECT ENRICH as having some degree of speech, language and/or hearing involvement.

Speech and Language Program

The problems treated on a formal speech therapy program included hearing loss (3), articulation (4), delayed speech and language (2), and combination articulation and stuttering (1). The ten children were seen three times weekly for six weeks, the time necessarily being shortened because of the testing involved and the number of days that the children were in school.

Materials used were toys, pictures, scrapbooks, flash cards, a tape recorder, table model Maico amplifier, a Phonic Mirror, card games, and rhymes. Emphasis was placed on carry-over of learned materials into the preschool program activities.

Results of therapy were not measurable, because specific post testing in the speech areas was sacrificed for testing that would yield the best overall view of the program. It may be hypothesized that speech and language improvement contributed to overall gains noted in specific children as a result of their participation in PROJECT ENRICH.

Information gleaned through a questionnaire indicates that seven of the ten children are on a speech therapy program in their respective public school settings.

CURRICULUM

A typical day's program:

9:30 to 9:50 - Semi-structured activities involving eye-hand coordination, fine motor activities, and socialization. During this period, the teachers and aides circulated among the children, to give aid when necessary and to establish social rapport.

Clay
Parquetry blocks with patterns(flat and/or 3 dimensional)
Colored cubes - with patterns
Sewing cards
Fringing
Block (1") paper activities(outline and color blocks from pattern model)
Pegboards
Puzzles
Stencils
Dot-to-dot pictures
Tracing pictures
Large dominoes
Building blocks
Geometric shapes
Association cards
Developmental learning materials

9:50 to 10:00 - Songs and fingerplays to develop socialization, right-left orientation, body orientation, laterality, memory span, rhythm, and language development.

10:00 to 10:30 - Language period--to develop language skills, socialization, introduction of concepts, readiness for learning speech.

Peabody Language Kit - Level I
EML Language Laboratory
Storytime and movies

These activities were presented in a team-teaching approach with all 17 children together during this session. The remainder of the activities were presented in separate sessions, using two groups of 9 children and

1 teacher. Group I worked on visual perception while Group II worked on motor activities; then each group switched to the opposite activity.

10:30 to 11:10 - Visual perception activities
Frostig materials
Fitzhugh PLUS Program
Plastic geometric forms
Templates (large and small)
Matrix (visual perception and language activities)
Sound records and games (Sounds I Can Hear)
Rhythm band
ITPA auditory perception activities

11:10 to 11:45 - Perceptual-motor activities
Balance beam
Balls, jump ropes, skooters, rocking boat, tunnel
Bean bag games
Chalkboard activities
Base line
Records (listening and moving, etc.)
Balance boards
Lippencott sequential developmental program
Getman Physiology of Readiness Program (also Kane)
Kephart Program
Activities prescribed by the visual specialist (marsden balls)

11:45 to 12:00 - Storytime, expression, etc.

Materials

The following is a list of materials used for specific purposes:

Motor Coordination	Visual Perception
Balance beam	Chalkboard
Balance board	Pegboards
Hurdles	Puzzles
Tunnel	Parquetry blocks
Rocking boat	Cube blocks
Jump ropes	Large and small templates
Bean bags	Number development kit
Large and small balls	Free forms

Motor Coordination

Ring toss game
Physical exercise records
Skooters
Pounding boards
Clay

Visual Perception

Plastic shapes
Frostig materials
Fitzhugh PLUS materials
Building blocks
Template inserts
Dominoes
Coordination boards
Sewing cards
Flannel board shapes
Playschool village
Beads and strings
Shoe lacer
Marsden balls
Base Lines
Crayons
Pencils
Markers
Scissors
Paste
Finger paints

Auditory Perception

Sound records
Rhythm band
Tape recorder
Bells
ITPA Language Program

Language - Concepts and Expression

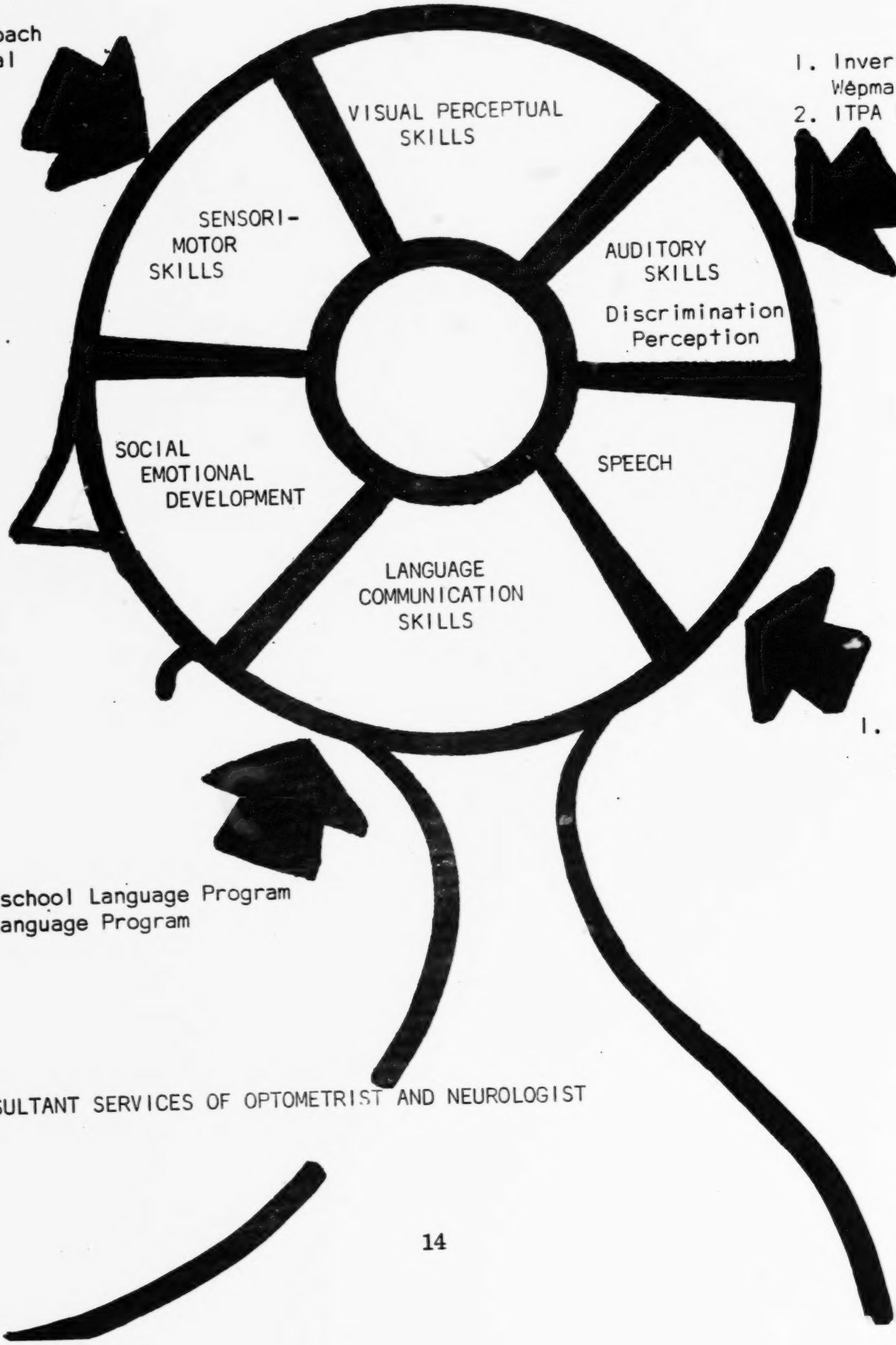
EML Language Laboratory
Peabody Language - Level I
Sing & Do Records
Telephones
Playmate puppets
Books

CURRICULAR ATTACK

1. Frostig Program
2. Fitzhugh Plus

Montessori Approach
Purdue Perceptual Motor Program
Kephart Program
Getman Program
Lippingcott Program

1. Inversion of Wepman
2. ITPA Program



1. Intensive Speech Therapy

ITPA Pre-school Language Program
Peabody Language Program

PLUS: CONSULTANT SERVICES OF OPTOMETRIST AND NEUROLOGIST

RESULTS

The following table represents the average pre and post scores for mental agé and intelligence of the subjects. Although the average gains shown are slightly above the normal expectations (approximately four months growth expected), the results are not considered significant. Since I.Q is relatively constant, the insignificant gains shown may be artifacts of visual-motor and language skills improvement.

TABLE I

Average Pre-Post Program I.Q. and M.A. Scores			
M.A.		I.Q.	
Pre 5-1	Post 5-6	Pre 90	Post 96

The results are based upon 33 students, 22 boys, 11 girls; 73 days in the program.

The table following shows the average gains on the pre and post tests of Visual-Motor Integration. This test gives a measure of the degree to which visual perception and motor behavior are integrated in young children. Since visual-motor behavior is a composite of other behaviors, including visual perception and motor coordination, techniques for determining specific areas of difficulty are provided. The correlations between the VMI test and reading achievement in the first grade are reported to be

higher than those between IQ and reading achievement. Scores are related more to integrative function than to individual functions, which suggests that the VMI test is a measure of a child's coordinating abilities.

We consider a gain of 10.57 months as significant when compared to an expectancy of 4.5 months based on growth alone.

TABLE II

Test of Visual-Motor Integration Mental Age Equivalence		
Pre	Post	Months Gain
4.43	5.27	10.5

Table III represents the average gain in each category of the Frostig Visual Perception Test.

The Eye-Motor Section is a test of eye-hand coordination involving the drawing of continuous straight, curved, or angled lines between boundaries of various widths, or from point to point without guide lines.

The Figure-Ground Section involves shifts in perception of figures against increasingly complex grounds. Intersecting and "hidden" geometric forms are used.

The Form-Constancy Section involves the recognition of certain geometric figures presented in a variety of sizes, shadings, textures, and position in space, and their discrimination from similar geometric figures. Circles, squares, rectangles, ellipses and parallelograms are used.

The Position In Space Section involves the discrimination of reversals and rotations of figures presented in a series. Schematic drawings representing common objects are used.

The Spatial Relationship Section involves the analysis of simple forms and patterns. These consist of lines of various lengths and angles which the child is required to copy, using dots as guide points.

In analyzing the results obtained, we feel the perceptual quotient gain is significant, since Perceptual Quotient is relatively constant. The significant gain in the Figure-Constancy area will be discussed later in the text.

TABLE III

Frostig Test of Visual Perception Mental Age Equivalence			
	Pre	Post	Months Gain
Eye Motor	4-3	4-8	5.8
Figure Ground	4-8	5-1	5.3
Form Constancy	5-9	7-0	19.48
Position In Space	4-2	4-8	6.8
Spatial Relations	4-9	5-5	6.5
Perceptual Quotient			8.21

Table IV represents the average gains on the Purdue Perceptual Motor Survey. Average gains are on a 0 to 1 scale.

The Balance and Posture Section determines laterality, balance, postural flexibility, body image, rhythm, and neuro-muscular control.

The Body Identification and Differentiation Section determines space localization, neuro-muscular control, ability to translate visual clues into motor movement, spatial relations, physical strength and muscular fitness, neuro-muscular differentiation, and laterality.

The Perceptual-Motor Match Section determines directionality, ability in perceptual-motor matching, pattern-matching, motor patterning and sustained monitoring, rhythmic flow and ability to make complex perceptual-motor adjustments, laterality, spatial-temporal relationship, and orientation.

The Ocular Control Section determines the ability to establish and maintain visual contact with a target.

The Form Perception Section determines performance in copying geometric forms and methods of organization.

In analyzing the results, any score gain over .4 has been arbitrarily defined as significant. The results show that significant gains were made in Body Identification and Differentiation and Perceptual-Motor Match sections.

TABLE IV

Purdue Perceptual Motor Test Pre/Post Program Change: Scale, 0-1		
Balance	.44	*
Image/Orientation	.62	**
Perceptual Motor Match	.52	**
Ocular Control	.39	
Form Perception	.31	

* Significant (Arbitrarily Defined)
** Very Significant (Arbitrarily Defined)

The following table represents the pre and post test scores and gains on the CPAF, Winter Haven Forms.

Although there are no known "average" norms for growth, it is believed that an average gain of 11.27 months over a period of four months is significant.

TABLE V

Children's Perceptual Achievement Forms			
	Pre	Post	Months Gain
Points	28.03	38.18	11.27

A score of 50 points is considered necessary for a positive prediction in learning to read.

DISCUSSION

During the first few weeks of the program, the teachers experimented with different plans for grouping the children for various activities. The plan that was adopted and carried through until the end of the first session was as follows:

When the children first came into the academic room, visual perceptual materials were set out on the tables and, for approximately 20 minutes, they worked as a complete group (17 children) with materials such as parquetry blocks, scissors and paper, block pictures, developmental learning materials, dot-to-dot pictures, etc. The two teachers and aides circulated around the room to help those who needed particular instruction in the type of activity they were working. The next ten minutes were

used in working with songs and fingerplays that stressed verbal and physical expression and body orientation. The next activity, language arts, was presented in a team-teaching approach and was held for approximately 30 minutes. Lessons and materials from the Peabody Language Arts Program--Level I, or the Educational Media Laboratory Language Program, were used. The class was then divided into two groups of 8 and 9 children each. One group moved to the motor room with one teacher and an aide where motor perceptual activities were practiced. The other group stayed in the academic room with the other teacher and aide while they worked on Frostig or Fitzhugh visual-perceptual materials, matrix game activities, sound-record activities, etc. During these sessions, individual instruction was given by the teacher or the aide in auditory perceptual activities, eye-tracking, speech, and visual perceptual tasks. After 40 minutes, the two groups switched rooms and the alternate activities were given to the two groups of children. The total program consisted of 140 minutes of continuous short and concise developmental tasks that challenged the children in all areas considered essential for the particular problems that were diagnosed.

In analyzing the results of the tests concerning visual-perceptual tasks, the teachers felt that the overall gain in each category of the Frostig Visual Perception test was achieved through daily use of Frostig and Fitzhugh materials. The Frostig lessons were carefully presented and, after a period of using Frostig plastic for practice, the children were able to complete the particular Frostig sheet for each day without help after the initial instructions were given. The Fitzhugh Program centered on Form

Constancy activities alone, and with the added Frostig materials in this area, the results of the test showed that this area was the one in which the greatest gain occurred. The teachers also held many instructional sessions working with large templates and inserts depicting the shapes of circles, squares, rectangles, triangles, and diamonds. Tracing and outlining activities, using plastic shapes for developing "shape pictures", and kinesthetic activities involving these shapes also attributed to the high gain in this area. Since many of the children exhibited difficulty in perceiving foreground from background, it was felt that concentration in this area would be beneficial and the test results showed that the assumption was correct.

The gains in Visual-Motor Integration and Perceptual Motor Coordination were attributed to the extensive emphasis that was placed on activities in these areas. The motor room was used to give instruction in floor exercises such as stationary crawl, kiddies-in-the-snow, push-ups, sit-ups, crab walk, duck walk, rocking boats, Kraus-Weber exercises, and, when necessary, patterning in creeping and crawling. Activities such as working on the balance beam, balance board, skooters and obstacles, helped the children develop balance and agility. Jumping, hopping, skipping, running, marching, walking, jumping jacks, rope-maze games, activities with balls, jump ropes, bean bags, and chalkboard activities developed coordination and body orientation skills.

Auditory perception skills were developed through the use of sound records, rhythm instruments, listening exercises, and individual instruction developed in relation to results from the ITPA test.

Oral expression and social skills were developed mainly through the use of the language program activities in which the children were given many opportunities to respond individually or act as leaders in front of the group. The use of the Matrix Game gave opportunities for developing memory span, concept formation, and the essential skill of following simple to complex directions.

The teachers felt that emotional stability was greatly improved in all the children in the program through the presentation of a structured curriculum that kept them busy in short instructional tasks that challenged them according to their particular developmental stages. Motivation was kept high by using diverse interesting materials that were presented in game-like activities. The teachers thoroughly enjoyed working with these children and their enthusiasm for the activities and working materials seemed to reflect to the children, creating an atmosphere of mutual enjoyment in the learning tasks.

It is again noted that PROJECT ENRICH is a "demonstration school" for preschool children with learning disabilities; it has no control groups. For this reason, and some personal biases, the results were not subjected to sophisticated statistical scrutiny. It was sufficient for those involved in the project to subjectively regard certain gains in months (and/or indices) beyond the number of months in the program as significant (arbitrarily defined). Certainly, the best indication of the success of the program will be performance of those 30 youngsters who were placed in first grade following this program. It is noted that more than 25 unsolicited parent testimonial letters from parents have been received to this point.

Relative to the curricular attack used in the program, it should be pointed out that this approach could benefit any preschool or primary program, since approximately 15% of entering first grade children have one or another organ or performance inefficiency(s); and the majority of school children will be reading two or more years behind their grade placement under traditional methods of instruction. The research of many; i.e., Kephart, Getman, et al, has shown that children who have experienced difficulties in balance are those who experience difficulty in learning to read; those who have difficulty in making a right-left directional translation at the body midline and see a continuous series of objects across their midline as two sets of objects lead to visual-perceptual difficulties. While the Kephart program was used to improve or correct perceptual motor skills (the foundation of reading), it also provided a "preferred task" behavior which was used as a reinforcer for "non-preferred-task" behaviors; i.e., Frostig and Fitzhugh PLUS paper and pencil assignments in the task area classroom. These latter materials are designed and systematically programmed for the improvement of visual perceptual skills. Depth feedback and size constancy, ability to discriminate differences in visual stimuli and their "normal" identification and interpretation, and "eye-hand" control determines visual efficiency, all of which are treated by the Frostig and Fitzhugh PLUS Programs.

SUMMARY AND CONCLUSION

The Beaver County Board of School Directors has been operating under an E.S.E.A. (P.L. 89-10), Title III grant a demonstration project which

was designed to remediate learning disabilities in preschool children between four and six years of age.

In the authors' judgment, the curriculum and associated materials used in this program met and exceeded the anticipated expectations in the remediation of learning disabilities in the sample of preschool children involved. On the basis of the results and experience gained in working with this group of children, a generalization is justified: the curricular attack used in this program may efficiently and positively modify learner behavior and significantly reduce the negative effects of the various learning disabilities treated in this project.

APPENDIX

COMMENTS BY PARENTS:

We believe that if it were not for Project Enrich our daughter would have been left far behind; perhaps her problems might not have been discovered until much later, if at all.

Such programs as the Frostig Workbooks, the Peabody language work, and physical exercise in addition to the excellent Enrich teachers' Mrs. Swaley and Miss Thornhill; along with the superb class of this year, taught by Mrs Doris Allen, have advanced Andrea to the point where she is now beginning first grade work! We do feel that without Project Enrich and Mrs Allen this would be impossible.

We are deeply grateful to Dr. Stanley Seidman and all the other people of Project Enrich as well as Dr. Meyers and Mrs. Doris Allen.

Yvette's progress for some time, but just heaven's taken the time. I have nothing but praise for Project Enrich. Yvette is like another child and has gained so much self-confidence. She now walks to and from her school bus by herself or with friends — no matter. She is more responsible and most of the credit for that achievement goes to Dr. Seidman for his conversations with Yvette and me. The rest of this credit goes to all the teachers at Project Enrich, with their attitudes of expecting Yvette to do for herself — something that hadn't as yet occurred to me. Yvette gets along better with her peer-group now. She is repeating Kindergarten, since she only had the first half of last year before we withdrew her. The teachers who knew Yvette last year have commented on the remarkable differences in her. These are the large achievements that are easily remembered - there are many other small things. I am so happy we learned of Project Enrich and Yvette was able to attend. If there is anything that I can do personally to help further the program at Project Enrich - please "contact" me. Thank you.

Program Enrich did wonders for my child. He learned how to cope w his emotional outbursts w/o us having learned to accept him & the [illegible] He still has problems but we are working thru past, slowly. Scotty talks often of Program Enrich & Mr Jeffman, his teachers & wishes he could go again this year.

We are very pleased with the progress that Janice has shown since she started school. It has been a blessing to her as she seems much surer of herself. Would it be possible to have Miss Lawler give us some words or sentences to practice with her at home? Thank you and keep up your wonderful work!

MARGARET IS MORE WILLING TO LEARN THAN BEFORE. SHE IS NOT SHY OF PEOPLE LIKE SHE USED TO BE. SEEMS TO GRASP MORE OF WHAT SHE IS TAUGHT AT SCHOOL NOW. BEFORE SHE WAS SLOW IN LEARNING.

MANY THANKS TO YOUR STAFF WHO HELPED MAKE THE PROGRAM POSSIBLE.

COMMENTS: Our daughter Julie was having a very hard time in Kindergarten at the Monaca Fifth Ward School. Her teacher did not have time to spend with her individually and perhaps was not trained to handle children in this category.

After starting in PROJECT ENRICH we noticed much improvement in her work, and we felt that she was receiving the special training needed. The teachers were very patient, understanding, and well trained to handle the children in the category that PROJECT ENRICH covers.

Although we have not received a report card yet this year, Julie appears to be doing well in First Grade. We attribute much of this to PROJECT ENRICH.

The full benefit Lyanne has received from Project Enrich, we are just beginning to fully realize. Her method of play and her temperment has changed for the better. She has more self control of her temper. Also her manner of speech has greatly improved. She speaks more in sentencies and conveys her ideas much more in full sentences.

+ definitely feel that Project Enrich was beneficial in many ways for my son James who is a fraternal twin. I feel it helped draw him out of a shell, and be more confident of himself. I'm sure he got a much better start in 1st Grade because of it. He seems to be doing well at this point and I am very pleased, because since there was no kindergarten available it also provided him with helpful info regarding school procedure. I definitely feel he has become more agressive, & felt he had been lacking in this area. His speech has definitely improved although he needs speech therapy continued for awhile before he is completely understood.

Bobby has consiterately improved over the past year. I fel your effortsare the reason fol most of the gain. His speech has improved and he has matured in general. I could offer no suggestions to imphove your program.

He responds to his parents and is more considerate of others than just himself. I'm for that we could never repay what Project Enrich has done for Jeffrey.

I feel that the Project Enrich has helpfld my son very much. I am very thankful that he was able to attend this school I am also very pleased with his progress since leaving the Project Enrich

James' progress in Kindergarten this year is really improved. He obeys directions better and seems to really know what he'd to do rather than guess.

The examination he received made the program more than worthwhile in his case.

I definitely think it was very beneficial. He's doing very well in first grade and his teacher said he does some beautiful art work. The reason he was recommended for Project Enrich was for motor ability and the use of his hands with scissors and in art work and His art work has improved wonderfully from Kindergarden to first grad. and I'm glad his year with Project Enrich was responsible for this.

It also felt he's learned to get along better and joining in with the other children & actively participating in things.

He has learned to think for himself and also to try and solve his own problems.

I feel Project enrich helps her very much. She expresses herself better and is doing very well in the 1st grade. She also adapts her to classroom activities and the other students better.

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